Complete Summary

TITLE

Oncology: percentage of patients, regardless of age, with a diagnosis of pancreatic or lung cancer who receive 3D conformal radiation therapy with documentation in medical record that radiation dose limits to normal tissues were established prior to the initiation of a course of 3D conformal radiation for a minimum of two tissues.

SOURCE(S)

American Society for Therapeutic Radiology and Oncology, American Society of Clinical Oncology, Physician Consortium for Performance Improvement®. Oncology physician performance measurement set. Chicago (IL): American Medical Association (AMA); 2008 Jun. 48 p. [16 references]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients, regardless of age, with a diagnosis of pancreatic or lung cancer who receive 3D conformal radiation therapy with documentation in medical record that radiation dose limits to normal tissues were established prior to the initiation of a course of 3D conformal radiation for a minimum of two tissues.

RATIONALE

Identifying normal tissue dose constraints is an important step in the process of care for patients receiving radiation therapy treatments. Although no specific data

is available, in its practice accreditation reviews, the American College of Radiation Oncology has found that normal dose constraints are included in the patient chart less frequently than reviewers expected. While dose constraint specification is an integral part of intensity modulated radiation therapy (IMRT), it is not required for 3D conformal radiation therapy. Patients treated with 3D conformal radiation therapy are often subjected to dose levels that exceed normal tissue tolerance, and precise specification of maximum doses to be received by normal tissues represent both an intellectual process for the physician during radiation treatment planning, and a fail-safe point for the treating therapists. In most circumstances where facilities require specification of normal tissue dose constraints prior to initiation of therapy, policies and procedures exist that prohibit exceeding those limits in the absence of written physician approval.*

*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

"The cognitive process of treatment planning requires the radiation oncologist to have knowledge of the natural history of the tumor to be treated and to determine the tumor site, its extent, and its relationship with adjacent normal tissues. This process is based on consideration of the history, physician examination, endoscopy, diagnostic imaging, findings at surgery, and histology. When ionizing radiation is to be used, the radiation oncologist must select beam characteristics and/or radionuclide sources, method of delivery, doses, and sequencing with other treatments. The sequencing with other treatments should be coordinated in collaboration with medical and surgical oncologists. The radiation oncologist determines the dose to be delivered to the tumor, limiting doses to critical structures (emphasis added), and the fractionation desired." (American College of Radiology [ACR], 2004)

PRIMARY CLINICAL COMPONENT

Pancreatic cancer; lung cancer; 3D conformal radiation therapy; radiation dose limits

DENOMINATOR DESCRIPTION

All patients, regardless of age, with a diagnosis of pancreatic or lung cancer who receive 3D conformal radiation therapy

NUMERATOR DESCRIPTION

Patients who had documentation in medical record that radiation dose limits to normal tissues were established prior to the initiation of a course of 3D conformal radiation for a minimum of two tissues

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

All patients, regardless of age

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients, regardless of age, with a diagnosis of pancreatic or lung cancer who receive 3D conformal radiation therapy

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
All patients, regardless of age, with a diagnosis of pancreatic or lung cancer who receive 3D conformal radiation therapy

Exclusions
None

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window brackets index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
Patients who had documentation in medical record that radiation dose limits to normal tissues were established prior to the initiation of a course of 3D conformal radiation for a minimum of two tissues

Exclusions
None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Episode of care

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Measure #7: radiation dose limits to normal tissue.

MEASURE COLLECTION

The Physician Consortium for Performance Improvement® Measurement Sets

MEASURE SET NAME

Oncology Physician Performance Measurement Set

SUBMITTER

American Medical Association on behalf of the American Society for Therapeutic Radiology and Oncology, the American Society of Clinical Oncology, and the Physician Consortium for Performance Improvement®

DEVELOPER

American Society for Therapeutic Radiology and Oncology
American Society of Clinical Oncology
Physician Consortium for Performance Improvement®

FUNDING SOURCE(S)

Unspecified

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

Patricia Ganz, MD (*Co-Chair*); James Hayman, MD (*Co-Chair*); Joseph Bailes, MD; Nancy Baxter, MD, PhD; Joel V. Brill, MD; Steven B. Clauser, PhD; Charles Cleeland, PhD; J. Thomas Cross, Jr. MD, MPH; Chaitanya R. Divgi, MD; Stephen B. Edge, MD; Patrick L. Fitzgibbons, MD; Sue Frechette; Myron Goldsmith, MD; Joel W. Goldwein, MD; Alecia Hathaway, MD, MPH; Kevin P. Hubbard, DO; Nora Janjan, MD, MPSA; Maria Kelly, MB, BCh; Wayne Koch, MD; Andre Konski, MD; Len Lichtenfeld, MD; Norman J. Marcus, MD; Catherine Miyamoto, RN, BSN; Michael Neuss, MD; Jean Owen, PhD; David F. Penson, MD, MPH; Louis Potters, MD; John M. Rainey, MD; Christopher M. Rose, MD; Lee Smith, MD; Lawrence A. Solberg, MD, PhD; Paul E. Wallner, MD; J. Frank Wilson, MD; Rodger Winn, MD

American Society for Therapeutic Radiation and Oncology: Dave Adler; Robyn Watson, PhD; Emily Wilson

American Society of Clinical Oncologists: Pamela Kadlubek, MPH; Kristen McNiff, MPH; Julia Tompkins

American College of Radiation Oncology: Jennifer Dreyfus

American College of Surgeons: Julie Lewis

American Medical Association: Joseph Gave, MPH; Kendra Hanley, MS, CHE; Erin O. Kaleba, MPH; Karen Kmetik, PhD

Centers for Medicare & Medicaid Service: Tiffany Sanders, MD

College of American Pathologists Staff: Fay Shamanski, PhD

Consumer Representative: Catherine D. Harvey, Dr.PH

Health Plan Representative: Ranae Dahlberg

Consortium Consultant: Rebecca Kresowik; Timothy Kresowik, MD

National Committee for Quality Assurance: Donna Pillittere

National Comprehensive Cancer Network: Joan McClure, MS

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

ENDORSER

National Quality Forum

INCLUDED IN

Ambulatory Care Quality Alliance

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2007 Oct

REVISION DATE

2008 Jun

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

American Society for Therapeutic Radiology and Oncology, American Society of Clinical Oncology, Physician Consortium for Performance Improvement®. Oncology physician performance measurement set. Chicago (IL): American Medical Association (AMA); 2008 Jun. 48 p. [16 references]

MEASURE AVAILABILITY

The individual measure, "Measure #7: Radiation Dose Limits to Normal Tissue," is published in the "Oncology Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on September 8, 2008. The information was verified by the measure developer on October 16, 2008.

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